



# Switches for the Audio/Visual Market

Product Training Module



Service ◆ Selection ◆ Speed



# Introduction

## Purpose

- Introduce designers, engineers and customers to E-Switch's most frequently used switches suitable for audio/visual applications.

## Objective

- Provide overview of audio/visual devices and equipment in which electro-mechanical switches are used.
- Provide features and advantages of switch series.
- Review top selling switch series used in various audio/visual applications.

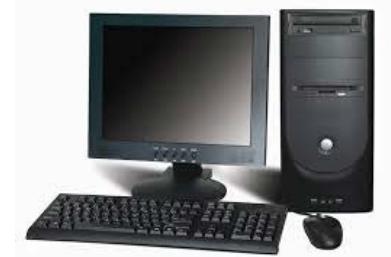
## Content

- 14 pages

# Overview

## Types of Audio/Visual Equipment That Use Electro-mechanical Switches

- Sound Components
- Visual Components
- Screen Projectors
- Computer Desktops
- Laptop Computers
- Video and Audio Conference Equipment
- Flat and Curve Screen Monitors
- Recording Equipment
- Amplifiers
- Training Simulators
- Security Camera & Control Panels





# Frequently Requested Switches for Audio/Visual Solutions

Switches frequently used for audio/visual applications, but are not limited to, are as follows:

- Pushbutton
- Rocker
- Tact





# Pushbutton Features and Advantages

## Pushbutton Switches

- Momentary or latching operation
- Offers termination options such as right angle, PCB pin and solder lug
- Wide range of cut-out panel sizes from 4.5mm to 30.5mm in diameter
- Non-illuminated and illuminated options in many color choices for design and function flexibility
- Large variety of cap styles available
- Many pushbuttons are IP certified
- RoHS compliant





# Illuminated Pushbutton Switch Applications

## Applications

Audio Board Controls  
Broadcasting Control Suites  
Mixing Boards  
Equipment On/Off Switch  
Gaming Control Panels  
Head Phones  
Answering Machine Indicator  
Sound & Lighting Controls



RP3508

ULP

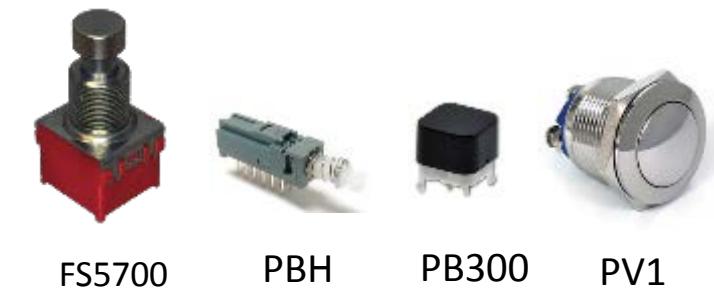
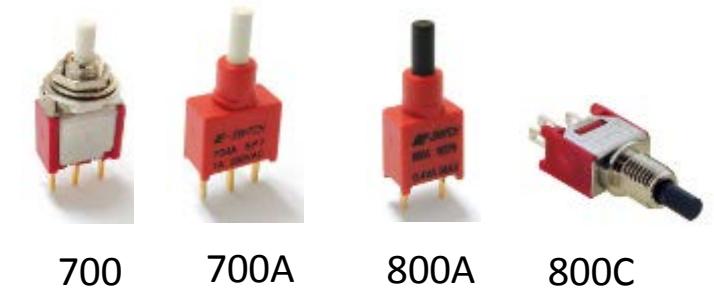
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# Non-Illuminated Pushbutton Switch Applications

## Applications

Foot Switch Control  
Equipment On/Off Switch  
Training Simulator Equipment  
Intercom Devices  
Security Camera Systems



RP8600



# Rocker Features and Advantages

## Rocker Switches

- Offer several termination options such solder lugs, PCB pins, screw terminals and quick connect tabs
- Available in many shapes, sizes and colors, plus the option of standard or custom symbols on the actuator
- Non-illuminated and illuminated options in many color choices for design and function flexibility
- RoHS compliant





# Rocker Switch Applications

## Applications

Surge Protectors  
On/Off Switch on Equipment  
Computer Towers  
Printers and Copiers



# Tact Switch Features and Advantages

## Tact Switches

- Offer several termination options such through hole, surface mount, right angle and dual stacked actuators
- Provide a range of profile heights from .55mm to 17.0mm
- Come in a wide range of sizes, from micro-miniature measurement of 3mm x 2mm to a large tactile surface of 12mm x 12mm
- Non-illuminated and illuminated options in many color choices for design and function flexibility
- Numerous tact switches offer multiple gram force options
- RoHS compliant





# Tact Switch Applications

## Applications

Remote Control Devices



LL1105

Smart Phone/Music Playlist Devices



Keyboards or Keypads



Instruments or Interface Control Panels



Audio Recording Equipment



TL3253

Sound Amplifiers



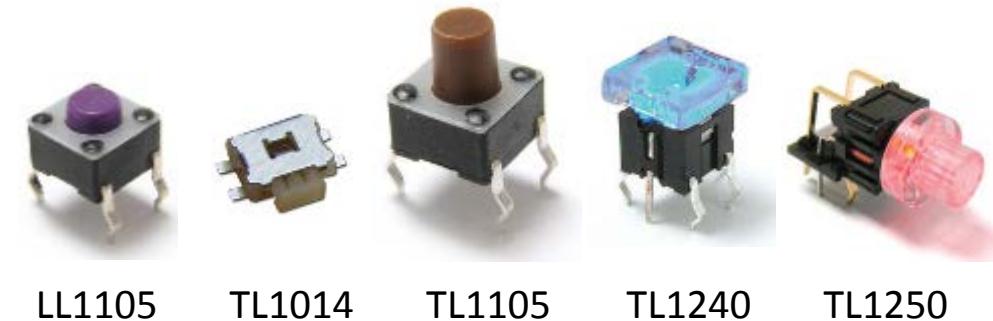
TL3301



TL3780



TL6100



TL3305



TL3342



TL3342

# Resources

**www.e-switch.com**



The screenshot shows the homepage of [www.e-switch.com](https://www.e-switch.com). The top navigation bar includes links for Contact Us, Catalog Request, Sample/Quote Request, and Distributor Stock Check. Below the navigation is the E-SWITCH logo and an Extranet Login link. A search bar with a 'GO' button is also present. The main menu features a 'Product Catalog' button, which is highlighted with a red arrow pointing to a dropdown menu. The dropdown menu lists 'Catalog by Type', 'Catalog by Features', and 'Cap Options'. The main content area features a green banner for 'Illuminated Slide Switch' with a product image and a 'CLICK HERE For More Information!' button. To the right, there are sections for '3D Models' (with an STP file icon) and 'Request 3D Model'. At the bottom, there is a 'Product Matrix' section. The phone number '800.867.2717' is prominently displayed on the right side of the menu bar.

Product Catalog

Catalog by Type

Catalog by Features

Cap Options

Extranet Login

**E-SWITCH®**

Search

Part No, Drawing, Series

GO

800.867.2717

Unique features:

- 2.0mm travel
- Multiple LED colors
- Compact SMT design
- LED illuminated actuator
- DPDT circuit with two positions

CLICK HERE  
For More  
Information!

3D Models

STP

Request 3D Model

Product Matrix

# Resources

www.e-switch.com

The screenshot shows the homepage of [www.e-switch.com](http://www.e-switch.com). The top navigation bar includes links for Contact Us, Catalog Request, Sample/Quote Request (circled in purple), and Distributor Stock Check. Below the navigation is the E-Switch logo and a search bar. The main menu features links for Product Catalog, E-Cross™, Where to Buy, Technical Information, and About E-Switch. A phone number, 800.867.2717, is prominently displayed. A large orange banner in the center promotes "E-Switch Virtual Solutions" with a grid of switch images and a call to action: "CLICK HERE to interact with our virtual solutions". To the right, there are sections for "3D Drawings" (with a link to "Request 3D Drawings" circled in purple) and "Product Matrix", each featuring a small image of a switch.

Contact Us Catalog Request Sample/Quote Request Distributor Stock Check

Extranet Login

**E-SWITCH®**

Search Part No, Drawing, Series GO

Product Catalog E-Cross™ Where to Buy Technical Information About E-Switch

**800.867.2717**

**INTRODUCING... E-Switch Virtual Solutions**

Our complete array of anti-vandal switches... at your fingertips!

CLICK HERE to interact with our virtual solutions

**E-SWITCH®**

**3D Drawings**

Request 3D Drawings

**Product Matrix**

# Resources

## Data Sheet

**TL6100 SERIES TACT SWITCH**

**APPLICATIONS / MARKETS**

- AUDIO/VIDEO
- INDUSTRIAL
- COMPUTER/NETWORK
- TRANSPORTATION
- MEDICAL

**RoHS**

**SPECIFICATIONS**

- Electrical Rating: 50mA @ 12VDC
- Life Expectancy: over 100M cycles
- Contact Resistance: 100mΩ Max. @ 100VAC
- Insulation Resistance: 100 MΩ Min. at 100VAC
- Dielectric Strength: 2500VAC for 1 min.
- Operating Temperature: -40°C to 80°C
- Storage Temperature: -50°C to 80°C
- Operating Force: 130 g, 160 g, 300 g, 500 g
- Travel: 0.50mm
- Contact Arrangement: SPST

**FEATURES & BENEFITS**

- Tube packaging
- Multiple operating forces
- Gold or silver contact option
- Multiple actuator lengths
- Process sealed

**PART NUMBER CONFIGURATOR**

Series	Actuator Options	Operating Force	Contact Rating	Termination
TL6100	A - 42mm B - 45mm C - 60mm D - 100mm	F120 - 120 g F160 - 160 g F300 - 300 g F500 - 500 g	Q - 4kA R - 6A	P - PCB pins

Actuation Force | Life Cycles

Actuation Force	Life Cycles
130 g	1,000,000
160 g	1,000,000
300 g	500,000
500 g	200,000

Specifications subject to change without notice

**E-SWITCH®**

## 3D Models. jpg



## Switch Samples



## Summary

- In summary, E-Switch provided an overview of audio/visual solutions and switch series which are suitable for common audio/visual applications.
- E-Switch provided features and advantages for switches that are in high demand for audio/visual applications. The most popular switch categories include pushbutton, rocker and tactile.
- Pushbutton features offer several termination options, various cut-out panel sizes from 4.5mm to 30.5mm in diameter and provide non-illuminated and illuminated options in many color choices.
- Rocker switches feature several termination options, offer many shapes, sizes and colors, plus the option of standard or custom symbols on the actuator and non-illuminated and illuminated options in many color choices.
- The advantages of tact switches include several termination options, provide a range of profile heights from .55mm to 17.0mm, come in a wide range of sizes and are available non-illuminated and illuminated with many color choices.
- Besides the switches shown in the product training module, E-Switch offers many more electro-mechanical switches that will meet the necessary requirements.